

## ATTACHMENT II

### LOUISIANA TECHNOLOGY INNOVATIONS FUND – SEMI-ANNUAL PROGRESS REPORT

March 9, 2004

*[This report is due on March 1 and September 1 each year. Limit the length of the report to three pages]*

**I DEPARTMENT/AGENCY LSUHSC-S**

**II PROJECT TITLE / Log # Managing Medications and Medical Supplies / #01-002**

**III PROJECT LEADER Lee Bairnsfather, Ph.D., LSUHSC-S, 1501 Kings Highway, Shreveport, LA 71130,  
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Name, Agency, Mailing Address, Phone Number, FAX Number, Internet E-mail address, Project Web page link (if applicable)

**IV DESCRIPTION OF THE PROJECT**

In the time since LSUHSC-Shreveport was awarded the LTIF grant “Saving Livings and Enhancing Efficiency: Managing Medications and Medical Supplies,” the healthcare industry and the government has strongly recommended that all hospitals strive to achieve the same goals that we originally proposed. To address these goals, we are working to reduce medication errors, to improve the efficiency of physicians and hospital personnel, and to improve our billing and collection systems through an integrated plan of information technology improvements and organizational changes. The entire project will take over three years to implement and will result in: (1) an upgrade to our Pharmacy system; (2) a new system to monitor patient medications through the use of wireless technology and barcode scanners; (3) a new system in which physicians place their own orders for medications, laboratory, and radiology tests, consultations, and dietary plans; and (4) a “rules engine” that will advise physicians and nurses regarding appropriate procedures, standard of care, and potential safety infractions.

**V PROJECT STATUS**

**A. Brief Summary**

The project is on schedule. Within 6 weeks, the first wireless barcode systems will be installed in the Psychiatric ward of the hospital, and all patients will have armbands with their medical record numbers encoded with a barcode. Also in the next 12 weeks, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) will review our progress to improve medication safety and management.

**B. Accomplishments**

In the past six months, we have completed the implementation of wireless Ethernet throughout the campus, including enhancements for wireless security. The implementation of the Pharmacy system has been completed, and physicians now have access through a web interface to all medications prescribed to patients in the hospital. Within the next six weeks, the first wireless barcode systems will be in use in the psychiatric ward of the hospital, and our progress will be reviewed by JCAHO.

**C. Problems Encountered/Action Taken or Planned**

Because the use of wireless technology and barcode scanners is a new approach to addressing the problem of medication management and patient safety, we have been one of the first hospitals to implement

the technology, and there has been much to learn. Although initial plans were to use a wireless handheld device, nursing staff found that the small screen size would not be sufficient to perform all needed functions and to ensure patient safety. As a result, we are conducting an extensive review of alternative systems. In our first implementation in the psychiatric ward, we have chosen a PC-based wireless system that will be integrated into the medication administration carts. The system will still be wireless and mobile, but will make use of a 17" flat-screen monitor to provide the nurses with access to additional information needed prior to administering medications (for example, a history of patient blood pressure, temperature, and other physiological parameters that might modify some aspect of drug administration).

Because of this need to change from a handheld device to PC-based wireless device, we have applied for and received a one-year extension to the project.

**D. Major Milestones, (Original versus Current Estimate)**

The project is on schedule. Major milestones have been accomplished, including the upgrade to the Pharmacy system, initial implementation (within 6 weeks) of a system to monitor patient medications through the use of wireless technology, an initial implementation of a "rules engine" to advise pharmacists regarding potential safety infractions and drug interactions.

**VI COST VS. BUDGET**

	<u>Category</u>	<u>Budgeted</u>	<u>Actual</u>	<u>Projected Surplus</u>
A.	Equipment	850,000	244,558	-0-
B.	Software	100,000	-0-	-0-
C.	Telecommunications	-0-	-0-	-0-
D.	Professional/Contract Services	-0-	43,165	-0-
E.	Other Costs	-0-	15,120	-0-
	<b>Total Project Cost</b>	<b>950,000</b>	<b>302,843</b>	<b>-0-</b>

**VII ITEMIZED EXPENSES AND FINANCIAL OBLIGATIONS INCURRED DURING THIS REPORTING PERIOD**

*[Include description, unit cost, quantity, and total cost for incurred expenses such as equipment, software, and telecommunications. Include contract title, name of contractor, OCR or P.O. Number, and amount for Professional Services and/or other Contract Services.]*

DATE	Vendor	Actual Expense	Item Description	PO or IT
01/14/03	CDW	1,870.00	Genicom Serial Matric Printer: Pharmacy Upgrade	06009636
01/14/03	CDW	3,740.00	Genicom Serial Matric Printer: Pharmacy Upgrade	06009636
01/14/03	Global (Delvia)	1,217.30	Okidata Printer: Pharmacy Upgrade	06009635
01/14/03	Global (Delvia) Pioneer Std.	39.64	Freight	06009635
01/14/03	(Delvia) Pioneer Std.	1,140.00	Lantronix Print Server: Pharmacy Upgrade	06009561
01/14/03	(Delvia) Global Data	12.03	Freight	06009561
02/17/03	Systems Global Data	5246.41	CiscoWireless LAN Soln.	06009974
02/17/03	Systems Global Data	73706.00	CiscoAironet Wireless Access Point (WAP)	06009974
02/17/03	Systems	8786.07	Cisco Catalyst3550 (WAP switch)	06009974
03/05/03	Oberion	19744.00	PlenumCeilingEnclosure for wireless Access point	06011257

03/05/03	Oberion	5990.00	Material for Ceiling Enclosure (WAP Hoods)	06011257
03/06/03	Dell	5,168.00	DellPowerEdge 1650, 36GB: Pharmacy Upgrade	06010467
03/06/03	Dell	6,570.50	DellPowerEdge1650, 146GB: Pharmacy Upgrade	06010467
04/14/03	Dell	7,540.85	DellPowerEdge 2650: Pharmacy Upgrade	06011004
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04/28/03	Logicom Systems			cancelled--
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04/29/03	Dell	3,058.00	Dell Inspiron1100 Intel4Process (Wireless security)	06011391
06/01/03	Global	7407.15	Cisco 48port for Catalyst6500 (WAP connections)	06012339
08/08/03	Work Order	999.84	Wireless Installation	119837
08/08/03	Work Order	171.00	Wireless Installation	119837
11/30/03	Telecommunications	770.26	Cabling for Wireless	GO9622
01/28/04	Telecommunications	13,953.75	Cabling for wireless	GO0059